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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/305,178	05/04/99	RIBADEAU-DUMAS G	6-1032-035

IM22/1214

HENDERSON AND STURM
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EXAMINER	
DUBOIS,P	
ART UNIT	**PAPER NUMBER**
1761	7

DATE MAILED: 12/14/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
09/305,178	Ribodeau-Dumas et al
Examiner	**Group Art Unit**
Philip DuBois	1761

☒ Responsive to communication(s) filed on *May 4, 1999*

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is clos d** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) *1-13* is/are pending in the applicat

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-13* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). *6*

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

The amendment filed on May 4, 1999 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: is the addition of "about" to describe ranges, percentages and amounts in the Abstract.

Applicant is required to cancel the new matter in the reply to this Office action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-13 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The deletion of [not very] before "soluble" in the Amendment filed on May 4, 1999 is new subject matter and not present in the specification. Furthermore, using the term "about" in claims 1-13 to describe ranges, percentages and amounts is new subject matter.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "oligosaccharide and polysaccharide" in step B of claim 1 is vague and indefinite. The class of polysaccharides include oligosaccharides. The language does not distinctly claim whether one oligosaccharide will suffice or if a polysaccharide and an additional

oligosaccharide are needed in the claimed invention. The claim will be interpreted as a Markush claim consisting of two groups. The first group being a group of starch hydrolysates and a second group of pyrodextrins, polyglucoses and a mixture of pyrodextrins and polyglucoses. Alternative expressions are permitted if they present no uncertainty or ambiguity with respect to the question of scope or clarity of the claims. One acceptable form of alternative expression, which is commonly referred to as a Markush group, recites members as being "selected from the group consisting of A, B and C." See *Ex parte Markush* , 1925 C.D. 126 (Comm'r Pat. 1925).

Claim 4 recites a limitation of "about 4000 o about 500 Daltons". However, claim 4 is dependent upon claim 2 which recites the limitation of "about 1000 to 6000 Daltons". Thus, claim 4 does not not coincide with the product limitation of claim 2.

6. The term "about" in claims 1-13 is a relative term which renders the claim indefinite. The term "about" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, and 5-8 and 12-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Mentink et al (U.S. Patent 5,314,701).

Mentink et al (Mentink) teach a sugar-free hard candy and process for its manufacture. The sugar frees hard candy utilizes mannitol and erythritol (U.S. Patent 5,314,701, col. 5, lines 9-11) and starch hydrolysates (U.S. Patent 5,314,701, col. 5, lines 12-16). The mannitol is at a concentration of 5% to 95% and has a solubility in water of less than 60 g per 100 g of water at a temperature of 20° C. (U.S. Patent 5,314,701, col. 4, lines 48-52). The starch hydrolysate can be maltotriitol (U.S. Patent 5,314,701, col. 5, lines 19-20) and is present at levels of 5 and 92% by weight in the composition (U.S. Patent 5,314,701, col. 4, lines 45-48). As maltotriitol is a preferred embodiment of the claimed invention, maltotriitol would inherently have the same molecular weight and glass transition temperature as that of the claimed invention.

Mentink teaches that candies can also be based on glucosido-1-6-mannitol (U.S. Patent 5,324,701, col. 3, lines 45-50).

The composition can be boiled (approximately 120° C) and formed into a hard candy (U.S. Patent 5,314,701, col. 1, lines 30-35). The hard candy may contain a variety of compounds including the flavors (U.S. Patent 5,314,701, col. 8, lines 55-60).

In re Best

Furthermore, the Office does not have the facilities for examining and comparing Applicant's product with the product of the prior art in order to establish that the product of the prior art does not possess the same material structural and functional characteristics of the claimed product. In the absence of evidence to the contrary, the burden is upon the applicant to prove that the claimed are functionally different than those taught by the prior art and to establish patentable differences. See *In re Best*, 562 F.2d 1252, 195 U.S.P.Q. 430 (CCPA 1977); *Ex parte Gray*, 10 U.S.P.Q. 2d 1922, 1923 (BPAI).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mentink et al (U.S. Patent 5,314,701) as applied to claims 1, 5-8, 12-13 above, and further in view of Yatka et al (WO 93/05663).

Mentink is being applied for the reasons noted above; however, Mentink does not teach that hydrogenated dextrin can be used in a sweetener composition. Yatka et al (Yatka) teaches that ingestible dextrin can be used in a sweetener (WO 93/05663, abstract). The ingestible dextrins are made by enzymatically treating dextrin to increase the branching of the product. The branching of the product would increase the amount of hydrogen due to the increased branching (WO 93/05663, p. 5). The result is a highly branched dextrin that is virtually ingestible.

Yatka also teaches that other well known products which enhance the flavor and consistency of the sweetener product. Yatka teaches that lactitol can be added to a sweetener. The lactitol can be used in a panning procedure (WO 93/05663, p. 15). It would have been obvious to one of ordinary skill in the art to optimize the amount of ingredients in a sweetener composition, because the ingredients are result effective variables which effect the taste and consistency of the product.

Thus, it would have been obvious to one of ordinary skill in the art to use ingestible dextrin in the product taught by Mentink because ingestible dextrin does not cause gastrointestinal disturbances, and does not significantly contribute to the calories of a food product (WO 93/05663, pg. 4), as taught by Yatka.

11. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mentink in view of Yatka as applied to claims 9-11 above, and further in view of Ribadeau-Dumas et al (U.S. Patent 5,470,591).

Mentink in view of Yatka is being applied for the reasons noted above. However, the references noted above do not teach the molecular weights of the ingredients. Ribadeau-Dumas et al (Ribadeau-Dumas) teaches that the best agents for controlling crystallization are substantially higher weight molecules. Substances with molecular weights greater than 3,000 Daltons are preferred (U.S. Patent 5,470,591, col. 5, lines 60-65). However, it would have been obvious to one of ordinary skill in the art to optimize the ingredients based on molecular weight because the molecular weight of the ingredients is a result affective variable which affects the crystallization of the product.

Thus, it would have been obvious to one of ordinary skill in the art to use ingredients with a large molecular weight in the product of Mentink in view of Yatka because the molecular weight of the ingredients affect the crystallization of the product, as taught by Ribadeau-Dumas.

In re Levin

Finally, Applicants' attention is invited to *In re Levin*, 84 USPQ 232 and the cases cited therein, which are considered in point in the fact situation of the instant case, and wherein the Court stated on page 234 as follows:

> This court has taken the position that new recipes or formulas for cooking food which involve the addition or elimination of common ingredients, or for treating them in ways which differ from the former practice, do not amount to invention, merely because it is not disclosed that, in the constantly developing art of preparing food, no one else ever did the

> particular thing upon which the applicant asserts his right to a patent. In all such cases, there is nothing patentable unless the applicant by a proper showing further establishes a coaction or cooperative relationship between the selected ingredients which produces a new, unexpected, and useful function. *In re Benjamin D. White*, 17 C.C.P.A (Patents) 956, 39 F.2d 974, 5 USPQ 267; *In re Mason et al.*, 33 C.C.P.A. (Patents) 1144, 156 F.2d 189, 70 USPQ 221.

Conclusion

12. No claim is allowed.

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Schiweck et al (U.S. Patent 4,233,439) teaches a process for making glucopyranosido-1,6-mannitol. de Man (Principles Of Food Chemistry) teaches that the combination of sweeteners often result in a sweetening synergistic effect. Morrison and Boyd (Organic Chemistry) teach that increased branching is a result of hydrogenation. Meyers et al (U.S. Patent 5,236,719) teaches an ingestible dextrin. Shi et al (U.S. Patent 5,795,397) teaches a chemically derivatized maltodextrin.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip DuBois whose telephone number is (703) 305-0508. The examiner can normally be reached on Monday through Friday from 8:00 to 5:30.The examiner is not in the office the second and fourth Fridays of each month.

15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Lacey, can be reached on (703)-308-3535. The **fax phone number** for this Group is (703)-305-3602.

16. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Philip A. DuBois

December 6, 1999

CURTIS SHERRER
PATENT EXAMINER